for main branch in bifurcational coronary artery lesions or using DES main branch with regular balloon for the side branch did not show significant improvement at 6/12 follow up particularly for the side branch which still show significant rate of restenosis. In bifurcation lesion with significant stenosis of both branches, the restenosis of side branch is high with either provisional or two stent techniques (15%). Recent reports suggest that drug eluting balloon (DEB) might improve the current result of side branch treatment. We perform this study to evaluate outcome of the percutaneous coronary intervention (PCI) with DES for main branch & DEB for side branch with bifurcational coronary artery disease.

METHODS This study enrolled 80 patients with coronary artery bifurcation lesions, 50 were males & 30 were females with a mean age of 60±8 years. Thirty patients had hyperlipidemia and 48 had diabetes mellitus. The involved vessels included left anterior descending/diagonal (56), circumflex/obtuse marginal (16) and right coronary artery/posterior descending or posteriolateral (8). All patients received DES for main branch PCI with paclitaxel DEB for the side branch. 50 patients had stable angina and 30 had unstable angina or silent ischemia. Patients with left main bifurcational lesion and patient with severe left ventricular dysfunction (ejection fraction > 25%)were excluded. At 6 months follow-up, coronary angiogram was performed in 40 patients, nuclear image in 28 patients and the remaining 12 were followed-up clinically. The mean size and length were 2.75 ± 0.5 and 18.0 ± 6.0 mm for the used DES and 2.22 ± 0.23 and 18.0 ± 8.0 mm for the used DEB.

RESULTS Procedure success was achieved in all patients. The Pre-PCI diameter stenoses for the main branch and for the side branch were 85 ± 12% and 80±10%, respectively. They became 5±7% and 15±10% immediately after the procedure and 15±6% and 30±10% at 6-12 month follow-up. Dissection of the posterolateral branch with residual restenosis of 60% occurred in one patient during dilatation with DEB, which was treated with DES with good result. No acute or sub-acute thrombosis was noticed in any of the studied patients. The incidences of restenosis and of major adverse cardiac events at follow-up were 5% and 6.25%, respectively. Restenosis occurred in 2 patients with circumflex/obtuse marginal and in 2 patients with left anterior descending /diagonal dilatation. 2 were treated with coronary artery bypass surgery and the other two were treated medically. No death was observed in any of the studied patients during the 12 month follow-up period.

CONCLUSION This study demonstrates that the technique of using DES for the main branch and DEB for the side branch for the treatment of bifurcational lesions is safe and effective with a low incidence of restenosis and major adverse cardiac events at immediate and six-twelve months follow-up.

TCTAP A-143

Clinical Outcome of Aorto-Ostial Coverage in Patients Following Implantation of Drug Eluting Stents in Unprotected Left Main Coronary Artery: 2-Year Results from the ASAN-MAIN Registry

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BACKGROUND The aim of this study was to compare the impact on clinical outcome of unprotected left main coronary artery (ULMCA) aorto-ostial coverage (AOC) with DES.

METHODS A total of 3041 patients with significant ULMCA stenosis were enrolled in ASAN-MAIN registry. We identified 861 (28.3%) with ULMCA treatment with DES, who were categorized into stenting *with* AO coverage (AOC, N=623) versus stenting *without* AOC (N=238).

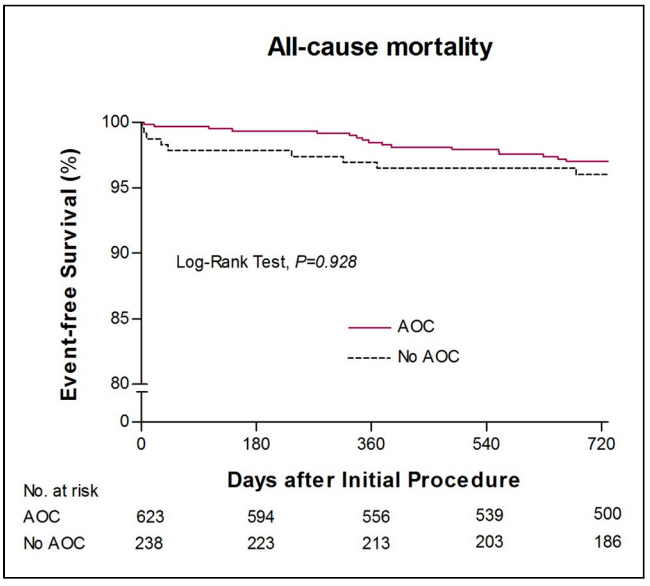
RESULTS Angiographic follow up was obtained in 630 (73.1%) patient. No AOC group showed more chronic total occlusion (2.9% vs. 1.0%; p=0.033) and more ulcerative lesions (4.6% vs.2.1%; p=0.043). In patients of the AOC group had more aorto-ostial lesion (49.3% vs. 2.1%; p= <0.001). During 2-year follow-up, all-cause mortality, MI, TVR and TLR did not show statistically significant differences. LM ISR did not differ between groups (4.2% in No AOC group vs. 6.9% in AOC group; p=0.29).LM ostial ISR occurred 8 patients (1.28%) in AOC group and de novo LM ostial stenosis occurred 4 patients (1.68%) in No AOC group. After Cox regression multivariable analysis, AOC did not affect the cardiac death (HR 1.86, 95% CI 0.57 to 6.05; p= 0.30).

CONCLUSION AOC of the ULMCA with DES is safe, which did not affect clinical outcomes or ISR.

Table 1. Characteristics of Study Patients Undergoing PCI of the ULMCA

	No AOC (N=238)	AOC (N=623)	P-value
Age (years)	62.34±10.97	63.92±9.47	0.231
Gender (Male)	45(18.9)	174(27.9)	0.007
Hypertension	144(60.5)	356(57.1)	0.371
Diabetes	85(35.7)	216(34.7)	0.774
LV ejection fraction (%)	57.3±9.72	59.6±7.64	0.035
Aorto-ostial lesion	5(2.1)	307(49.3)	0.001
At least one chronic total occlusion	7(2.9)	6(1)	0.033
At least one severe calcification	14(5.9)	21(3.4)	0.095
At least one thrombus present	12(5)	26(4.2)	0.579
At least one ulceration	11(4.6)	13(2.1)	0.043
Reference diameter (mm)	3.58±0.44	3.7±0.42	0.001
Lumen diameter stenosis (%)	61.83±32.8	64.79±26.5	0.171
Total number of stents	2.89±1.4	2.68±1.5	0.301
Total stent length	70.32±39.7	63.08±38.1	0.158
Maximal balloon inflation size	3.94±0.3	4.08±0.4	0.004

Data are N (%), mean±SD); AOC, aorto-ostial coverage



(Freedom From All-cause Mortality in the AOC Group Versus the No AOC Group for ULMCA).

CELL THERAPY AND ANGIOGENESIS (TCTAP A-041)

TCTAP A-041

Inhibiting Mobilization of Ly6Chigh Monocytes After Acute Myocardial Infarction Enhanced the Efficacy of Mesenchymal Stromal Cells Transplantation and Curbed Myocardial Remodeling

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BACKGROUND Ischemia-related inflammation is the most critical factor for the survival of transplanted mesenchymal stem cells (MSCs). Strategies of keeping excessive inflammation in control after acute myocardial infarction (AMI) are necessary and essential for the survival of transplanted MSCs. Our study was to test whether decreased $Ly6C^{high}$ monocytes benefited mouse MSCs transplantation post-AMI.

METHODS BALB/c AMI mice were systemically treated with CCR2 antagonist (RS504393, 2mg/kg, Tocris) or normal saline (controlgroup). 10^5 EdU-labeled (Invitrogen) MSCs were administered to mice in both groups by intramyocardial injection. We used Tunel kits (R&D Systems) to identify the apoptotic cardiomyocytes in the infarct zone. And slides of the infarcts were stained with Wheat Germ Agglutinin (Invitrogen) to measure vessel density. Anti-Myosin Heavy Chain eFluor 660 (eBioscience) was utilized to measure cardiac myosin-positive area. Transwell chambers (Corning) were introduced to examine the interactions between MSCs and $Ly6C^{high}$ monocytes. Inflammatory cytonkines expressed by $Ly6C^{high}$ monocytes and SDF-1 secreted by MSCs were detected with Elisa Kits (R&DSystems). MSCs viability was further